

Montana DEQ Forest Fire Smoke Advisory

August 17, 2007

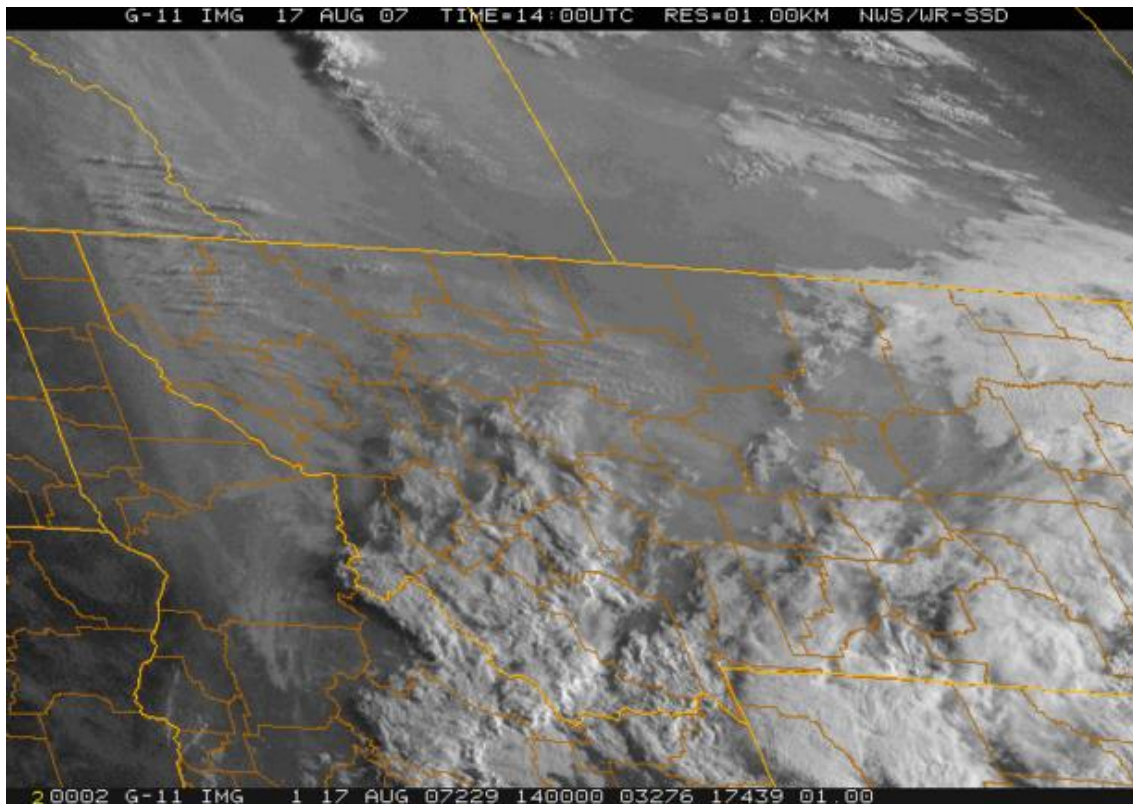
10:00 AM Friday

FORECAST:

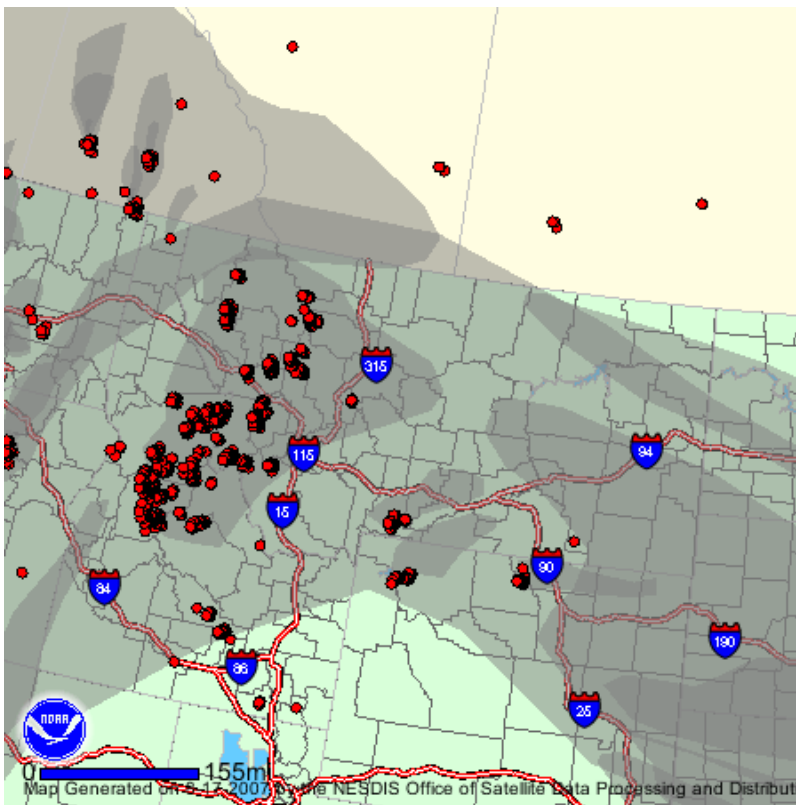
A thick layer of smoke is impacting west central and northwestern Montana this morning. Winds from the south and east have concentrated the smoke over this area and surface smoke levels are unhealthy in most areas at this time. East of the divide, the smoke is aloft and only a few moderate levels have been reported.

Winds today in the western part of the state will be switching from east to west with little net transport and smoke conditions in the most heavily impacted areas are not expected to show much improvement. Some areas will see the smoke thin out in the afternoon but direct plume impacts in some areas could be severe. East of the divide, south winds over the WH Complex fire south of Livingston will continue to impact the upper Yellowstone area today and late morning mixing will bring smoke to the surface across a wide area for a few hours. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

A morning satellite photo centered on Great Falls is illustrated below:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage).



Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lq_fire2.php

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

<http://www.deq.state.mt.us/FireUpdates/SmokeCategories.asp>

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DISCUSSION:

Libby is at unhealthy for sensitive. The rest of the reporting areas in northwest and west central Montana are at unhealthy as of 8 am. This includes Whitefish, Kalispell, Polson, Ronan, Missoula, and Hamilton. Kalispell and Missoula are almost at very unhealthy conditions and could end up there later today. Smoke levels in the Seeley Lake area and the Rock Creek area near the active fires are expected to be as bad or worse. The south winds have improved conditions in Butte substantially; they are now down to moderate after the very high levels there yesterday. Helena, Choteau, and Livingston are currently at moderate as well. Fire activity levels are expected to remain high along with smoke production and smoke concentrations will not improve before tomorrow in most

areas. Some thinning will occur during the warmest part of the day. Residents downwind of the active fires and experiencing impacts from residual smoke will need to pay close attention to conditions in their area and use the [visibility guidelines](#).

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local visibility to guide activity decisions as the situation changes.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality

Updated 10 AM August 17, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

<u>HAZARDOUS</u>	
<u>VERY UNHEALTHY</u>	
<u>UNHEALTHY</u>	Kalispell T24 Whitefish T24 Polson T24 Ronan T24 Hamilton T24 Missoula T8
<u>UNHEALTHY FOR SENSITIVE GROUPS</u>	Libby T8
<u>MODERATE</u>	Helena T8 Butte T8 Livingston Vis(2) Choteau T24

T1(x)	One-hour TEOM or BAM value (number of values)
T8(x)	Eight-hour average TEOM or BAM value(number of values)
T24	24 hour average TEOM or BAM value
Vis(x)	Visibility value(number of hours)
Vis(am/pm)	Visibility value from twice/day reporting stations
(est)	estimate